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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,646	03/09/2004	Jui-An Shih	24061.64 (TSMC2003-0229)	2188
27683	7590	05/15/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			CABRERA, ZOILA E	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/796,646	<b>Applicant(s)</b> SHIH ET AL.	
	<b>Examiner</b> Zoila E. Cabrera	<b>Art Unit</b> 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 18-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/28/04</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakashima (US 2003/0125832 A1).

Nakashima discloses:

1. A method for scheduling a monitor job for a tool in a semiconductor manufacturing environment, the method comprising: receiving the monitor job ([0091]); monitoring a status of the tool to determine when a predefined event occurs ([0093], i.e., event such as completion of processing); identifying a position in a buffer in which to place the monitor job in response to the predefined event occurring ([0095], i.e. in response to the completion of processing event the next step of the current process or next stocker is determined), wherein placing the monitor job in the identified position will cause the monitor job to be executed at a correct time (Fig. 1, i.e., G LOT (SPECIAL); Page 7, [0099], i.e. when the special purpose lot is a lot for monitoring dust, it is unloaded from the final stocker and is recovered for carrying it to a dust measuring instrument to be executed); and placing the monitor job in the identified position in the

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buffer (Figs. 1-2).

2. The method of claim 1 wherein the buffer includes a plurality of production jobs, and wherein the method further comprises: determining whether at least some of the plurality of production jobs need to be rearranged in order to place the monitor job into the identified position; and rearranging at least some of the plurality of production jobs (Fig. 1, Lot Path Table 23; [0108], a step changing unit 284 is changed or rearranged).

3. The method of claim 1 further comprising receiving a plurality of production jobs while monitoring the status of the tool (Fig. 1; [0093], i.e., a timer is started simultaneously with the registration of the lot).

As for claims 15-16, the same citations applied to claims 1-2 above apply as well for these claims.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakashima (US 2003/0125832 A1) in view of Rice et al. (US 2004/0193300 A1).

Nakashima discloses the limitations of claims 1 and 15 above but fails to specifically disclose a manufacturing execution system adapted for interacting with at least one of the manufacturing tool and the scheduler. However, Rice discloses a MES interacting with a scheduler and tools ([0045]). Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the teachings of Nakashima with the system of Rice because it would provide an automatic handling of manufacturing jobs in a semiconductor factory and thereby decreasing the cost of the products.

***Allowable Subject Matter***

3. Claims 8-14 are allowed.

Claims 4-7 and 18-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record does not disclose or suggest, alone or in combination, the step of:

Regarding independent claim 8, **identifying which of the portions are required for processing a job upon receiving a processing request for the job; updating the new job count for each portion that is required; comparing the threshold value for each portion with the summation value; and accepting the job**

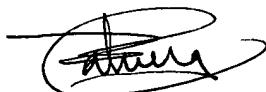
**for processing only if the summation value meets the threshold value, in combination with the other elements and features of the claimed invention.**

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (571) 273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.



Zoila Cabrera  
Patent Examiner  
5/2/06